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Date: August 6, 2007 Name: Joseph F. Hetz, Reg. No. 41,070 Signature: _____

BRINKS HOFER GILSON &LIONE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Vyvoda et al.
Appln. No.:	09/918,853
Filed:	July 30, 2001
For:	Process for Fabricating a Dielectric Film Using Plasma Oxidation
Attorney Docket No:	10519-29

Examiner: Toledo, Fernando L.

Art Unit: 2823

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL

Sir:

Attached is/are:

☒ Response to Notification of Non-Compliant Appeal Brief (8 pages); and

☒ Return Receipt Postcard

Fee calculation:

☒ No additional fee is required.

☐ Small Entity.

☐ An extension fee in an amount of $_____ for a _____-month extension of time under 37 C.F.R. § 1.136(a).

☐ A petition or processing fee in an amount of $_____ under 37 C.F.R. § 1.17(_____).

☐ An additional filing fee has been calculated as shown below:

					Small Entity			Not a Small Entity	
	Claims Remaining After Amendment		Highest No. Previously Paid For	Present Extra	Rate	Add'l Fee	or	Rate	Add'l Fee
Total		Minus			x $25=			x $50=	
Indep.		Minus			x 100=			x $200=	
First Presentation of Multiple Dep. Claim					+$180=			+ $360=	
					Total	$		Total	$

Fee payment:

☐ A check in the amount of $_____ is enclosed.

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☐ Payment by credit card in the amount of $_____ (Form PTO-2038 is attached).

☒ The Director is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925.

Respectfully submitted,

August 6, 2007
Date

Joseph F. Hetz (Reg. No. 41,070)

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Date of Deposit

Joseph F. Hetz - Reg. No. 41,070
Name of Applicant, Assignee or Registered Representative

Signature

Our Case No. 10519-29

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Vyvoda et al.	Examiner:	Toledo, Fernando L.
Serial No.:	09/918,853	Group Art Unit:	2823
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RESPONSE TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This paper is being filed in response to the Notification of Non-Compliant Appeal Brief mailed on July 6, 2007, and includes a replacement "Summary of Claimed Subject Matter" section for the Appeal Brief.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent Claim 1 recites a plasma oxidation process that includes exposing an oxidizable surface to an oxidizing plasma where the oxidizing plasma has an activity relative to the oxidizable surface. The process further includes forming an oxide film on the oxidizable surface and regulating the oxidizing plasma activity to limit a rate of formation of the oxide film (P. 6, Lines 14-30).

Independent Claim 18 recites a process for fabricating an oxide film in a semiconductor device that includes forming a semiconductor layer and exposing the semiconductor layer to a plasma comprising oxygen where the plasma has an activity relative to the semiconductor layer (P. 10, Lines 12-16; P. 11, Lines 25-28; P. 7, Line 18-21). The process further includes forming an oxide film on the semiconductor layer and regulating the plasma activity to limit a rate of formation of the oxide film (P. 6, Lines 14-22).

Independent Claim 35 recites a process for forming an antifuse that includes exposing an oxidizable surface to an plasma oxidation process for an initial exposure time and growing an oxide film on the oxdizable surface where the oxide film grows to a predetermined thickness at an end of the initial exposure time (P. 6, Lines 1-4; P. 11, Lines 25-27). Additional exposure to the plasma oxidation process beyond the initial time does not result in a significant further increase in thickness of the oxide film (P. 8, Lines 16-22).

Independent Claim 55 recites a process for fabricating a dielectric film in a semiconductor device that includes exposing an oxidizable surface to a plasma (Ps. 5-6, Lines 27-1) comprising an oxygen species and a nitrogen species where the plasma has

an activity relative to the oxidizable surface (P. 16, Lines 26-31). The process further includes forming an oxynitride film on the oxidizable surface (Ps. 16-17, Lines 26-5) and regulating the plasma activity to limit a rate of formation of the oxynitride film (P. 6, Lines 14-30).

Independent Claim 62 recites a process for fabricating an oxide film in a semiconductor device that includes exposing an oxidizable surface to a plasma comprising oxygen where the plasma has an activity relative to the oxidizable surface (P. 7, Lines 18-27). The process further recites forming an oxide film on the oxidizable surface and regulating the plasma activity to limit a rate of formation of the oxide film (P. 6, Lines 18-30) and forming a silicon nitride layer overlying the oxide film (P. 17, Lines 1-5).

Independent Claim 67 recites a process for fabricating a dielectric film in a semiconductor device that includes exposing an oxidizable surface to a plasma comprising an oxygen species where the plasma has an activity relative to the oxidizable surface (P. 7, Lines 18-27). The process further recites forming an oxide film having an upper surface on the oxidizable surface and regulating the plasma activity to limit a rate of formation of the oxide film (P. 6, Lines 14-30) and forming an oxynitride region at the upper surface of the oxide film (Ps. 16-17, Lines 26-5).

Independent Claim 72 recites a plasma oxidation process that includes exposing an oxidizable surface to an oxidizing plasma where the oxidizing plasma has an activity relative to the oxidizable surface. The process further includes forming an oxide film on the oxidizable surface and regulating the oxidizing plasma activity to limit a rate of

formation of the oxide film by regulating at least one of the following: reaction kinetics, growth initiation, and surface energy (P. 6, Lines 14-30).

Independent Claim 89 recites a process for fabricating an oxide film in a semiconductor device that includes forming a semiconductor layer and exposing the semiconductor layer to a plasma comprising oxygen where the plasma has an activity relative to the semiconductor layer (P. 7, Lines 18-27). The process further includes forming an oxide film on the semiconductor layer and regulating the plasma activity to limit a rate of formation of the oxide film by regulating at least one of the following: reaction kinetics, growth initiation, and surface energy (P. 6, Lines 18-30).

Independent Claim 96 recites a process for fabricating a dielectric film in a semiconductor device that includes exposing an oxidizable surface to a plasma (Ps. 5-6, Lines 27-1) comprising an oxygen species and a nitrogen species where the plasma has an activity relative to the oxidizable surface (P. 16, Lines 26-31). The process further includes forming an oxynitride film on the oxidizable surface (Ps. 16-17, Lines 26-5) and regulating the plasma activity to limit a rate of formation of the oxynitride film by regulating at least one of the following: reaction kinetics, growth initiation, and surface energy (P. 6, Lines 14-30).

Independent Claim 103 recites a process for fabricating an oxide film in a semiconductor device that includes exposing an oxidizable surface to a plasma comprising oxygen, where the plasma has an activity relative to the oxidizable surface (P. 7, Lines 18-27). The process further includes forming an oxide film on the oxidizable surface and regulating the plasma activity to limit a rate of formation of the oxide film by regulating at least one of the following: reaction kinetics, growth initiation, and surface

energy (P. 6, Lines 14-30) and forming a silicon nitride layer overlying the oxide film (P. 17, Lines 6-14).

Independent Claim 108 recites a process for fabricating a dielectric film in a semiconductor device that includes exposing an oxidizable surface to a plasma (Ps. 5-6, Lines 27-1) comprising an oxygen species where the plasma has an activity relative to the oxidizable surface (P. 7, Lines 18-27). The process further includes forming an oxide film having an upper surface on the oxidizable surface and regulating the plasma activity to limit a rate of formation of the oxide film by regulating at least one of the following: reaction kinetics, growth initiation, and surface energy (P. 6, Lines 14-30) and forming an oxynitride region at the upper surface of the oxide film (Ps. 16-17, Lines 26-5).

Independent Claim 113 recites a plasma oxidation process that includes exposing an oxidizable surface to an oxidizing plasma, where the oxidizing plasma has an activity relative to the oxidizable surface. The process further includes forming an oxide film on the oxidizable surface and regulating the oxidizing plasma activity to limit a rate of formation of the oxide film to a predetermined growth rate while the oxidizable surface is being exposed to the oxidizing plasma (P.6, Lines 14-30).

Independent Claim 130 recites a process for fabricating an oxide film in a semiconductor device that includes forming a semiconductor layer and exposing the semiconductor layer to a plasma comprising oxygen, where the plasma has an activity relative to the semiconductor layer (P. 7, Lines 18-27). The process further includes forming an oxide film on the semiconductor layer and regulating the plasma activity to limit a rate of formation of the oxide film to a predetermined growth rate while the semiconductor layer is being exposed to the plasma (P. 6, Lines 14-30).

Independent Claim 137 includes a process for fabricating a dielectric film in a semiconductor device that includes exposing an oxidizable surface to a plasma (Ps. 5-6, Lines 27-1) comprising an oxygen species and a nitrogen species, where the plasma has an activity relative to the oxidizable surface. The process further includes forming an oxynitride film on the oxidizable surface (Ps. 16-17, Lines 26-5) and regulating the plasma activity to limit a rate of formation of the oxynitride film to a predetermined growth rate while the oxidizable surface is being exposed to the plasma (P. 6, Lines 14-30).

Independent Claim 144 recites a process for fabricating an oxide film in a semiconductor device that includes exposing an oxidizable surface to a plasma comprising oxygen, where the plasma has an activity relative to the oxidizable surface (P. 7, Lines 18-27). The process further includes forming an oxide film on the oxidizable surface, regulating the plasma activity to limit a rate of formation of the oxide film to a predetermined growth rate (P. 6, Lines 18-30) while the oxidizable surface is being exposed to the plasma, and forming a silicon nitride layer overlying the oxide film (P. 17, Lines 6-14).

Independent Claim 149 recites a process for fabricating a dielectric film in a semiconductor device that includes exposing an oxidizable surface to a plasma (Ps. 5-6, Lines 27-1) comprising an oxygen species where the plasma has an activity relative to the oxidizable surface (P. 7, Lines 18-27). The process further includes forming an oxide film having an upper surface on the oxidizable surface and regulating the plasma activity to limit a rate of formation of the oxide film to a predetermined growth rate (P. 6, Lines

18-30) while the oxidizable surface is being exposed to the plasma and forming an oxynitride region at the upper surface of the oxide film (Ps. 16-17, Lines 26-5).

Conclusion

It is believed that this Response is fully responsive to the outstanding Notice. If there are any questions, please contact the undersigned attorney at (312) 321-4719.

Dated: August 6, 2007

Respectfully submitted,

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